IN THE CLAIMS:

Amend Claims 1 and 22 as follows:

1. (Currently Amended) Vehicle comprising

a chassis (2),

at least two first wheels (3) of a first type, which are arranged to support the chassis when resting on the ground and which are each arranged to be rotatable relative to the chassis not only about a first substantially vertical axis (4) extending through said ~~set~~ respective wheels (3), but also about a second axis (5) that constitutes an angle greater than 0° but less than 90° relative to both the first substantially vertical axis (4) and a horizontal axis, such that each said wheel has a contact surface against the ground that defines a rolling point (6) which is horizontally displaced from the first substantially vertical axis (4) and upon one revolution of each said wheel, a circle is traced on the ground by said rolling point (6),

means (8) for individually controlling the alignment of said wheels relative to the chassis

by turning about the first axis (4),

means (18) for individually driving said wheels,

a regulation device (9) to regulate the movements of the vehicle in a horizontal plane,

a control device (7) with a calculation unit (11) arranged to produce signals to control said control and drive means via information from the regulation device to achieve the movement as instructed by the regulation device,

wherein the regulation device is designed with the capability to, on request of a change of the vehicle's direction in a horizontal plane, order a position for a turning point (B) for the vehicle anywhere in the horizontal plane, the control device's calculation unit is designed to calculate instantaneous desired value of respective said first wheel's angular alignment relative to a lengthwise axis of the vehicle corresponding to the location of said turning point as ordered by the regulation device and send signals to the control means to achieve that alignment, and

said regulation device comprises

first means (12, 12') for displacing a steering line (S) passing through the turning point (B) of the vehicle from one location (S') to another (S") in parallel, and

second means (15, 15') for simultaneously displacing said turning point (B) along said steering line (S) from one location (B_1) to another (B_2).

2. (Previously Presented) Vehicle according to claim 1, wherein the calculation unit (11) is designed to assume an alignment of said first wheels (3) about the first axis parallel to each other on calculation of the desired value for each wheel's alignment in the horizontal plane for a determined position of said turning point (B) to determine each wheel's turning about said first axis relative to said parallel alignment.

3. (Previously Presented) Vehicle according to claim 2, wherein the calculation unit (11) is arranged to select the alignment that the vehicle's wheels (3) had as the last parallel alignment before the regulation device's ordering of alignment change as the assumed parallel alignment in its calculations.

4. (Previously Presented) Vehicle according to claim 1 wherein said calculation unit (11) is designed to establish a Cartesian co-ordinate system in the horizontal plane for its calculations with the chassis' centre of rotation (C) as origin and to utilize co-ordinates for said location of the vehicle's turning point (B) in said co-ordinate system in the calculation of said alignment of each said first wheel (3).

5. (Previously Presented) Vehicle according to claim 4, wherein the calculation unit (21) is arranged to designate an axis (x) in said Cartesian co-ordinate system to be directed parallel to said assumed parallel alignment.

6. (Previously Presented) Vehicle according to claim 1 wherein the control device (7) is arranged to control said wheels via the control means (8) according to a basic principle that they should be mutually parallel-aligned on movement of the vehicle in the horizontal plane with exception of when a change in the vehicle's direction in the horizontal plane is ordered by the regulation device.

7. (Previously Presented) Vehicle according to claim 2, wherein the regulation device comprises a first means (12, 12') to order a parallel displacement of a steering line (S) of the vehicle meaning an intended line that intersects said turning point (B) and extends perpendicularly to said assumed parallel alignment.

8. (Previously Presented) Vehicle according to claim 2, wherein the regulation device comprises a second means (15, 15') to displace the turning point (B) ordered by the regulation device along with an instantaneously existing steering line (S) of the vehicle being an intended line that extends through said turning point and perpendicularly to said assumed parallel alignment.

9. (Previously Presented) Vehicle according to claim 8, wherein said first and second means are controllable totally independently of one another.

10. (Previously Presented) Vehicle according to claim 1, wherein the regulation device comprises a third means (16, 16') to set said drive means' (18) direction of the respective first wheels' driving about said second axis.

11. (Previously Presented) Vehicle according to claim 1, wherein the regulation device comprises a fourth means (17) to set velocity of the respective first wheels' (3) rotation about the second axis brought about by the drive means (18).

12. (Previously Presented) Vehicle according to claim 11, wherein the calculation unit (11) is arranged to calculate a suitable rotational velocity of the wheel about its second axis in co-operation with said fourth means (17) for each said first drivable wheel (3) from distance of the wheel from said turning point (B).

13. (Previously Presented) Vehicle according to claim 1, wherein it comprises means (20) arranged at each of the vehicle's wheels to sense the wheels' alignment about the first axis relative to the chassis.

14. (Previously Presented) Vehicle according to claim 1, wherein it comprises means (19) arranged at each of the vehicle's drivable wheels (3) to sense rotational velocity and direction of rotation about said second axis of the wheel.

15. (Previously Presented) Vehicle according to claim 13, wherein the control device comprises means (21) arranged to compare the result of said sensing with corresponding desired values ordered via the calculation units calculations, and to correct the control signals to control means/drive means (8/18) on deviation between said result and desired value.

16. (Previously Presented) Vehicle according to claim 1, wherein the control device (7) comprises a programmable computer.

17. (Previously Presented) Vehicle according to claim 1, wherein apart from the two said first wheels (3) said vehicle comprises at least one further part (3) arranged to support the chassis and form a third support point for the chassis on the ground, and said part is formed from a link-wheel or another part with at least the corresponding mobility as said wheels (3).

18. (Previously Presented) Vehicle according to claim 17, wherein said further part is said first wheel (3).

19. (Previously Presented) Vehicle according to claim 17, wherein it comprises two said further parts which are wheels.

20. (Previously Presented) Vehicle according to claim 19, wherein four first wheels (3) are attached to the chassis (2) substantially in each corner of a rectangle in the horizontal plane.

21. (Previously Presented) Vehicle according to claim 19, wherein the two said first wheels (3) are individually drivable and controllable, and the other two first wheels are individually controllable.

22. (Currently Amended) Method for controlling the movements of a vehicle (1) over the ground on which the vehicles resides, whereby the vehicle comprises a chassis (2), at least two first wheels (3) of a first type, which are arranged to support the chassis when resting on the ground and comprising the steps of

arranging each said first wheels to be rotatable relative to the chassis not only about a first, substantially vertical axis (4) extending through said ~~set~~ respective wheels (3), but also about a second axis (5) that constitutes an angle greater than 0° but less than 90° relative to both the first substantially vertical axis (4) and a horizontal axis, whereby each said wheel has a contact surface against the ground that defines a rolling point (6)

which is horizontally displaced from the first substantially vertical axis (4) and upon one revolution of each said wheel, traces a circle on the ground,

controlling, with a regulation device (9), the movements of the vehicle in a horizontal plane, where the alignment of said wheels relative to the chassis is controlled individually by turning the wheel about the first substantially vertical axis (4), each said wheel is driven individually and, via information from the regulation device, signals are produced by calculation to achieve the movement as instructed by the regulation device,

on request of a change of the vehicle's direction in a horizontal plane, ordering a position for a turning point (B) via the regulation device for the vehicle anywhere in the horizontal plane,

calculating for such an ordered location of said turning point (B) for the vehicle, the instantaneous desired value corresponding to the location of said turning point for the respective first wheel's angular alignment relative to a lengthwise axis of the vehicle,

displacing, with said regulation device, a steering line (S) passing through the turning point (B) of the vehicle from one location (S') to another (S") in parallel,

simultaneously displacing said turning point (B) along said steering line (S) from one location (B_1) to another (B_2), and

controlling the wheels on the basis thereof.

23.(Previously Presented) Method according to claim 22, wherein the calculation of said desired value for each wheel's (3) alignment in the horizontal axis for a determined location of said turning point (B) assumes an alignment of each said first wheel about the

first axis parallel to each other to determine a desired value for each wheel's turning about said first axis relative to said parallel alignment.

24.(Previously Presented) Method according to claim 23, wherein on said calculation the alignment that the vehicle's wheels (3) had as the last parallel alignment before the ordering of an alignment change of the vehicle is chosen as said assumed parallel alignment.

25. (Previously Presented) Method according to claim 22, wherein on calculation a Cartesian co-ordinate system is established in the horizontal plane with the chassis' centre of rotation (C) as origin and co-ordinates for said location of the vehicle's turning point (B) in said co-ordinate system is used on calculation of said alignment of each said first wheel.

26. (Previously Presented) Method according to claim 25, wherein on calculation an axis (x) is designated to be directed parallel to said assumed parallel alignment in said Cartesian co-ordinate system.

27. (Previously Presented) Method according to claim 22, wherein said wheels (3) are controlled according to a basic principal that they should be mutually parallel-aligned on movement of the vehicle in the horizontal plane with an exception of when a change in the vehicles direction in the horizontal plane is ordered by the regulation device.

28. (Previously Presented) Method according to claim 23, wherein the vehicle is controlled by carrying out a parallel displacement of a steering line (S) of the vehicle, meaning an intended line that intersects said turning point (B) and extends perpendicularly to said assumed parallel alignment.

29. (Previously Presented) Method according to claim 23, wherein the vehicle is controlled by displacement of the vehicle's turning point along with an instantaneous existing steering line (S) of the vehicle being an intended line that intersects said turning point (B) and extends perpendicularly to said assumed parallel alignment.

30. (Previously Presented) Method according to claim 22, wherein the alignment relative to the chassis (2) of each said wheel (3) is sensed and/or rotational velocity and direction of rotation about said second axis of each drivable wheel of the vehicle is sensed, and the results of said sensing is compared with corresponding desired values produced via said calculation, and on deviation between said results and desired values a control is carried out achieve agreement between the results and the desired values, to correct the control signals to the control means/drive means (8/18).

Claim 31-33. Canceled